

Patent Claims

- 1) Pharmaceutical composition, characterised in that it contains one or more anticholinergics (1) in combination with one or more anti-TNF antibodies (2) optionally in the form of the individual optical isomers, mixtures thereof or racemates and optionally in the form of the pharmacologically acceptable acid addition salts thereof, optionally in the form of the solvates or hydrates and optionally together with a pharmaceutically acceptable excipient.
- 2) Pharmaceutical composition according to claim 1, characterised in that 1 is selected from among the tiotropium salts, oxitropium salts or ipratropium salts, preferably tiotropium salts.
- 3) Pharmaceutical composition according to claim 2, characterised in that 1 is present in the form of the chloride, bromide, iodide, methanesulphonate or para-toluenesulphonate, preferably in the form of the bromide.
- 4) Pharmaceutical composition according to one of claims 1 to 3, wherein the anti TNF antibody 2 can be polyclonal or monoclonal, can be modified by pegylation or can be a fragment of an antibody (which may or may not be fused to another protein), as long the fragment contains at least one high affinity TNF alpha binding site.
- 5) Pharmaceutical composition according to claim 4, characterised in that 2 selected from among infliximab, adalimumab, afelimomab, CDP-571 (trade name Humicade) and CDP-870.
- 6) Pharmaceutical composition according to claim 4 or 5, characterised in that 2 is selected from among CDP-571 or infliximab.
- 7) Pharmaceutical composition according to one of claims 1 to 6, characterised in that the active substances 1 and 2 are present either together in a single formulation or in two separate formulations.

- 8) Pharmaceutical composition according to one of claims 1 to 7, characterised in that the weight ratios of 1 to 2 are in the range from 1:2000 to 1:1, preferably from 1:1000 to 1:5.
- 5 9) Pharmaceutical composition according to one of claims 1 to 8, characterised in that a single administration corresponds to a dose of the active substance combination 1 and 2 of 1 to 10000 μ g, preferably from 10 to 5000 μ g.
- 10) Pharmaceutical composition according to one of claims 1 to 9, characterised in that it is in the form of a formulation suitable for inhalation.
- 10 11) Pharmaceutical composition according to claim 10, characterised in that it is a formulation selected from among inhalable powders and inhalable solutions or suspensions.
- 15 12) Pharmaceutical composition according to claim 11, characterised in that it is an inhalable powder which contains 1 and 2 in admixture with suitable physiologically acceptable excipients selected from among the monosaccharides, disaccharides, oligo- and polysaccharides, polyalcohols, salts, or mixtures of these excipients with one another.
- 13) Inhalable powder according to claim 12, characterised in that the excipient has a maximum mass mean aerodynamic diameter of up to 250 μ m, preferably between 10 and 150 μ m.
- 20 14) Capsules, characterised in that they contain an inhalable powder according to claim 12 or 13.
- 15) Pharmaceutical composition according to claim 11, characterised in that it is an inhalable powder which contains only the active substances 1 and 2 as its ingredients.
- 25 16) Pharmaceutical composition according to claim 11, characterised in that it is a inhalable solution or suspension which contains water, ethanol or a mixture of water and ethanol as solvent.

17) Inhalable solution or suspension according to claim 16, characterised in that the pH is 2-7, preferably 2-5.

18) Use of a capsule according to claim 14 in an inhaler, preferably in a Handihaler.

5 19) Use of an inhalable solution according to one of claims 15 or 16 for nebulising in an inhaler according to WO 91/14468 or an inhaler as described in Figures 6a and 6b of WO 97/12687.

20) Use of a composition according to one of claims 1 to 17 for preparing a medicament for treating inflammatory or obstructive diseases of the respiratory tract.